Chapter 14

Repeat Rate Analysis

Introduction

1. Repeat rate analysis consists of the measure of the number of films which were discarded during a time period (usually a month) as well as the total number of films justified by the studies ordered, the assignment of a technical reason for the discard of each film and the calculation of the percentage of unsatisfactory films.

2. The analysis of repeat rates is an important component of a complete quality control program. This program provides accountability and a mechanism for identifying specific areas for improvement which may be addressed through in-service training needs or additional quality control measures. The goal is to reduce the number of repeat films as low as possible.

3. The reduction of repeat rates has professional, ethical, biological and economical benefits.[1] Most government agencies have repeat analysis programs. Studies have shown that in hospitals where no repeat rate analysis program exists, most repeats are caused by poor technical quality of the radiograph, but where a program is used, most repeats are from positioning errors. [2,3]

Minimum Required Personnel Qualifications:

Level I (Basic X-ray Surveyor)

Testing Periodicity:

Annually

Instrumentation:

None required

Procedures:

See appendix H.

Reporting Requirements:

Report overall repeat rate of each facility major work center back to facility with summary to NEHC.

References:

1. Carrol, Q. B., *Fuch's Principles of Radiographic Exposure and Quality Control*, Fourth Edition, Charles C. Thomas, 1990.
2. *Nationwide Evaluation of X-Ray Trends (NEXT)*, Conference of Radiation Control Program Directors, Inc. (CRCPD). Frankfort: CRCPD (current version)
3. Suleiman, O.H., *Results of Federal and State Studies on Film Processing*, in Film Processing in Medical Imaging, A. G. Haus, ed., Medical Physics Publishing, Madison, WI. 1993.